

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S2	145	((TAKAHARU) near2 (KONDO)).INV.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/16 16:26
S1	22	((TAKAHARU) near2 (KONDO)).INV.	USPAT	OR	OFF	2007/04/16 16:26
S3	11	((MAKOTO) near2 (HIGASHIKAWA)).INV.	USPAT	OR	OFF	2007/04/16 17:14
S5	24751	ZnO	USPAT	OR	OFF	2007/04/16 17:22
S4	30	((TETSURO) near2 (NAKAMURA)).INV.	USPAT	OR	OFF	2007/04/16 17:22
S7	1	S6 and (zinc or Zn\$4)	USPAT	OR	OFF	2007/04/18 09:01
S6	1	"5021100".pn.	USPAT	OR	OFF	2007/04/18 09:01
S8	1	S6 and (zinc or Zn\$10)	USPAT	OR	OFF	2007/04/18 09:14
S9	2675	stack\$4 with (pv or photovoltaic or solar)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 09:15
S10	1043	S9 and (Zn\$4 or zinc\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 09:17
S12	2	"20010012569"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 09:22
S15	0	("2001/0012569").URPN.	USPAT	OR	OFF	2007/04/18 10:17
S14	0	("2001/0012569").URPN.	USPAT	OR	OFF	2007/04/18 10:17
S13	0	("2001/0012569").URPN.	USPAT	OR	OFF	2007/04/18 10:17
S16	0	("2001/0012569").URPN.	USPAT	OR	OFF	2007/04/18 10:18
S18	1	"4638111".pn.	USPAT	OR	OFF	2007/04/18 10:59
S17	12	("4638111").URPN.	USPAT	OR	OFF	2007/04/18 10:59
S21	1	S20 and stack\$4	USPAT	OR	OFF	2007/04/18 11:28

## EAST Search History

S20	1	"6242080".pn.	USPAT	OR	OFF	2007/04/18 11:28
S19	1	S18 and (zinc or Zn\$4)	USPAT	OR	OFF	2007/04/18 11:28
S11	11	S10 and (Zn\$4 or zinc\$4) with (vary\$4 and resist\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 15:22
S22	8	shunt\$4 with (Zn\$4 or zinc\$4) with (vary\$4 and resist\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 15:32
S23	4189	shunt\$4 with (vary\$4 and resist\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 15:33
S24	1	S23 and stack\$4 with (pv or photovoltaic or solar)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 15:34
S25	70	S23 and (pv or photovoltaic or solar)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 16:28
S26	76	short with circuit with prevent\$4 with resistiv\$4 with (multiple or different or high or low)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 16:29
S27	18	S26 and (zinc or Zn\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/18 16:30

## EAST Search History

S28	6	("6211454").URPN.	USPAT	OR	OFF	2007/04/18 16:58
S29	7	("5769963").URPN.	USPAT	OR	OFF	2007/04/18 16:59
S30	2	"4598306".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/19 10:19
S31	27	("4598306").URPN.	USPAT	OR	OFF	2007/04/19 13:09
S33	27	("4598306").URPN.	USPAT	OR	OFF	2007/04/19 13:10
S32	109320	"31" and (Zn\$4 or zinc\$4)	USPAT	OR	OFF	2007/04/19 13:10
S34	21	S33 and (Zn\$4 or zinc\$4)	USPAT	OR	OFF	2007/04/19 13:50
S35	1	"5021100".pn. and (Zn\$4 or zinc)	USPAT	OR	OFF	2007/04/19 13:51
S37	0	("7049190").URPN.	USPAT	OR	OFF	2007/04/19 13:55
S38	0	("7049190").URPN.	USPAT	OR	OFF	2007/04/19 14:13
S39	0	(resitvity or conductivity) with varying with (zinc or Zn\$4) with barrier	USPAT	OR	OFF	2007/04/19 14:14
S36	13	(resitvity or conductivity) with varying with (zinc or Zn\$4)	USPAT	OR	OFF	2007/04/19 14:15
S41	9	S40 and 136/246.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/19 14:20
S40	8348	Zn\$4 and buffer with layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/19 14:21
S43	2	"6242080".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/19 14:35

## EAST Search History

S42	9	Zn\$4 and buffer with layer with shunt	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/19 14:35
S45	1	S43 and resist\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/19 14:36
S44	1	S43 and resistivity	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/19 14:36
S46	2	("6242080").URPN.	USPAT	OR	OFF	2007/04/19 14:37
S47	1	S46 and vary\$4	USPAT	OR	OFF	2007/04/19 14:55
S49	5	S48 and (pv or photovoltaic or solar)	USPAT	OR	OFF	2007/04/19 14:56
S48	39	Zn\$4 with vary\$4 with (resist\$ or conduct\$4)	USPAT	OR	OFF	2007/04/19 14:56
S50	0	ZnO barrier layer short defect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 08:56
S53	96	S52 and defect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 08:57
S52	1007	(ZnO or (zinc near1 oxide)) barrier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 08:57

## EAST Search History

S51	0	(ZnO or (zinc near1 oxide)) barrier short\$4 defect\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 08:57
S55	2	"5318685".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 09:30
S54	26	S53 and (pv or photovoltaic or solar)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 09:30
S56	1	S55 and vary\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 09:33
S58	2	"5279679".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 09:56
S57	2	"4729970".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 09:56
S59	1	S58 and zinc	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 10:20

## EAST Search History

S61	2	"5268039".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 10:21
S60	1	S58 and vary\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 10:21
S62	0	S61 and vary\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 10:26
S63	70	barrier\$4 with resistiv\$4 with vary\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 11:52
S64	2	"5268039".pn. and (zinc or Zn)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 11:55
S65	2	"5279679".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 12:02
S66	1	"5279679".pn. and (zn or zinc)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 12:10

## EAST Search History

S68	2	"4598306".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 12:11
S67	3	"5769963".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2007/04/23 12:11
S69	2	"7189917".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 08:24
S70	1	jp-03084782-\$.did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 08:25
S71	98816	Okada	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 08:26
S72	1	2003/0217769	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 08:31
S73	2	"20030217769"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 09:17

## EAST Search History

S75	0	S74 and vary\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 09:18
S78	1552128	"7189917".pn. and resistiv\$4 or conductiv\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 09:19
S77	1552128	S74 and resistiv\$4 or conductiv\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 09:19
S76	1552128	S74 and resistiv\$4 or conductiv\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 09:19
S79	1	"7189917".pn. and (resistiv\$4 or conductiv\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 09:23
S80	1	"7189917".pn. and (deposi\$4 or CVD or sputt\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 10:04
S81	1	"7189917".pn. and (CVD or chemical)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 10:05



## EAST Search History

S82	2	"7189917".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 16:18
S74	2	"7189917".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 16:18
S85	31689	S84 and shunt\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 17:31
S84	779912	grade\$4 resistiv\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 17:31
S83	1	S82 and (chemical or CVD)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/24 17:31
S86	18	("20020157703"   "20030049881"   "20030217769"   "4536607"   "4971919"   "5021100"   "5510151"   "5714010"   "6123824"   "6127202"   "6153823"   "6177711"   "6215061"   "6261862"   "6344608"   "6472248"   "6482668"   "6960718").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/04/24 18:00
S88	807067	S87 and vary\$4 or grad\$4	US-PGPUB; USPAT; USOCR	OR	OFF	2007/04/24 18:01

## EAST Search History

S87	18	("20020157703"   "20030049881"   "20030217769"   "4536607"   "4971919"   "5021100"   "5510151"   "5714010"   "6123824"   "6127202"   "6153823"   "6177711"   "6215061"   "6261862"   "6344608"   "6472248"   "6482668"   "6960718").PN. OR ("7189917").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/04/24 18:01
S90	7	S87 and (vary\$4 or grad\$4)	US-PGPUB; USPAT; USOCR	OR	OFF	2007/04/24 18:02
S89	807067	S87 and vary\$4 or grad\$4	US-PGPUB; USPAT; USOCR	OR	OFF	2007/04/24 18:02
S91	19	(indium with oxide with zinc with film with stack) and reflect\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 16:51
S92	8	(diffusion\$4 near2 barrier) with layer with indium with zinc with oxide	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 16:53
S96	0	S94 and diff\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 16:54
S95	0	S94 and diffusion\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 16:54
S94	2	"7189917".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 16:54

## EAST Search History

S93	0	"7189917".pn. and diffusio\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 16:54
S97	311	(indium near2 oxide)with diffus\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 16:55
S99	4920	layer\$4 with indium with zinc with oxide	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 17:03
S98	50	S97 with barrier\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 17:03
S10 0	2	"2000150934".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 17:38
S10 1	0	jp-06041878-\$.did	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 18:20
S10 3	9399852	zinc indium Zn In	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 18:28

## EAST Search History

S10 2	10	"55108780"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 18:28
S11 0	2255	S106 with (oxide oxides)	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:33
S10 9	290155	S106 with oxide oxides	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:33
S10 8	2255	S106 with oxide\$4	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:33
S10 7	2462	S106 with oxid\$4	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:33
S11 1	1564038	thick thicker thickness	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:34
S11 4	15	S113 with S112	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:35
S11 3	425726	micron microns angstroms angstrom	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:35
S11 2	213	S110 with S111	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:35
S11 5	411465	zinc indium Zn	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:36
S10 6	21570	S104 with S105	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:36
S10 4	4960327	zinc indium Zn In	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:36
S11 7	1	S114 and S116	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:37
S11 6	1596	S115 with S105	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:37
S10 5	74285	diffus\$4 near2 (barrier\$4 block\$4 layer)	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:37
S11 8	953	S105 with S111 with S113	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:38
S11 9	50	S116 and S118	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:39
S12 0	9	S119 and (pv or photovoltaic or solar)	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:48
S12 1	4	zinc near2 oxide near2 diffusion near2 barrier	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:49
S12 2	4	(zinc or Zn) near2 oxide near2 diffusion near2 barrier	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:50

## EAST Search History

S12 5	1	"4,419,533".pn.	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:51
S12 4	55	"4,419,533"	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:51
S12 3	22	(zinc or Zn) near5 oxide near5 diffusion near5 barrier	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:51
S12 7	0	S125 and barrier and thickness	US-PGPUB; USPAT	OR	OFF	2007/04/25 18:54
S12 6	1	S125 and barrier	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:14
S12 8	1	S126 and thick\$4	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:16
S12 9	1	S126 and TCO	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:17
S13 2	36	S131 and thick\$4	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:18
S13 3	57	(diffusion\$4 near2 barrier) with (zinc or Zn) with oxide	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:19
S13 0	72	diffusion\$4 with barrier with (zinc or Zn) with oxide	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:19
S13 5	29	S134 and (pv or photovoltaic or solar)	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:20
S13 4	100	(diffusion\$4 near2 barrier) with ((zinc near2 oxide) or Zn or Zn)	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:32
S13 7	10	S136 and (pv or photovoltaic or solar)	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:33
S13 1	37	S130 and (pv or photovoltaic or solar)	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:33
S13 9	56	S138 and (pv solar photovoltaic)	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:41
S13 8	435	nm near2 (indium near2 oxide)	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:41
S13 6	26	(diffusion\$4 near2 barrier) with ((indium near2 oxide))	US-PGPUB; USPAT	OR	OFF	2007/04/25 19:51
S14 1	445	(indium near2 oxide) near2 nm	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 19:53

## EAST Search History

S14 0	33	(diffusion\$4 near2 barrier) with ((indium near2 oxide))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 19:53
S14 2	56	S141 and (pv or solar or photovoltaic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/25 19:54
S14 4	54500	Sano	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/27 09:39
S14 3	2	"2000150934"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/04/27 09:39